

Foal Rejection

by: *Christina Cable, DVM, Dipl. ACVS*

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Your prized mare has just given birth to her first, long-awaited foal. The whole family and several of your friends have stayed awake to watch the event. The new filly foal appears healthy and strong as she quickly begins her attempts to stand. The foal, after several spectacular crashes, finally makes it to her feet. As flashbulbs go off, your mare suddenly becomes anxious, then obviously distressed. She lunges at the foal, ears pinned, teeth bared...

The above scenario is not a common one, but foal rejection definitely occurs and is a serious problem if it rears its ugly head. There are several different manifestations or degrees of foal rejection, a behavioral problem that occurs after the foal is born. To understand why foal rejection occurs and how to prevent it, you must first realize what is normal post-foaling maternal behavior. This article will describe what should take place between mare and foal (normal behavior), what abnormal behavior is, thoughts on how to prevent foal rejection, and how foal rejection is treated in order to get the mare to accept the foal.

It is thought that the mare begins to form the bond with her foal during the early stages of labor. At the end of Stage I labor, the mare's water breaks and the fluid which surrounds the foal within her uterus (amniotic fluid) is expelled. The mare usually will spend a fair amount of time smelling the fluid.

After the mare gives birth, she will again smell the fluid, along with the placenta. She might even show more interest in the fluids and placenta than the foal, at first. The mare also might show flehmen (upper lip curling) after she smells the fluid. This is considered normal behavior in the mare and some people believe that this is how the mare recognizes the foal as hers. The mare will identify the foal with the amniotic fluid, because the foal will smell like the fluid, thus the mare will recognize the foal as hers.

After she has fully investigated the placenta and fluid, she will turn her attention to the foal, first smelling the foal, then licking the foal--usually starting at the head and moving to the hindquarters. The mare will continue to lick the foal, but only for the first few hours of life, unlike other species of animals such as cats, dogs, and cattle, which will lick their offspring for several days or weeks after birth.

This initial touching and smelling experience for the mare and foal is crucial for establishing a strong bond between them. The first hour of a foal's life is the most important in establishing this bond, and human intervention should be limited, unless of course medical attention to either mare or foal is necessary.

As the mare licks the foal, the youngster will begin to make attempts to stand. This should occur within one hour of delivery. Foals should begin to nurse from the mare within two hours. At first, the foal will attempt to suckle everything but the mare's udder, but most foals eventually find the udder without help. There is no need to interfere with this process unless the foal has not nursed from the mare within a few hours of birth. The mare's first milk (colostrum) is of the utmost importance since it contains the immunoglobulins that will help prevent infection in the young foal.

Remember, foals are born with little to no working immune system, so colostrum intake is imperative. Therefore, any interference with the foal ingesting colostrum within three hours of birth should be considered an emergency, whether it be an inability of the foal to stand and nurse due to illness, or the mare not allowing the foal to nurse (rejection).

As the foal nurses, the mare can show a range of normal behaviors, even normal aggressive behaviors. Mares might pin their ears, squeal, swish their tails, push the foal away, make smacking noises, and bite or kick their foals during nursing. This is not necessarily rejection behavior. These apparent aggressive behaviors are thought to be a response to the foal bumping against the udder or biting a teat. This type of aggressive behavior, although normal, occurs with more frequency when the foal reaches several months of age and does not occur very often with the newborn foal. (See *Maternal Behavior*, *The Horse* of November 1996, page 28.)

Another normal post-foaling behavior of the mare that many people might erroneously consider abnormal is aggression of the mare toward humans and/or other horses. This behavior can be represented in varying degrees for each mare and is totally unpredictable until the birth of the foal. Even the kindest of horses can show amazing aggression towards humans after the birth of a foal.

This behavior is thought to occur as an instinct in mares, because foals when they are very young will instinctively follow any large moving body. So, if the mare does not bond properly with the foal, the foal might begin to follow humans or another horse. In the wild, a foal which follows another horse would most likely starve or be the victim of an attack by a stallion. Although this behavior seems out of place, it is understandable. So, approach new mothers with caution and common sense. Aggression toward humans or other horses usually will subside in a few days to a few weeks after birth.

So how does a mare recognize her own foal? It is not by vision or smell alone, but thought to be a combination of vision (appearance), smell, and sound. Mares will not let a foal other than her own nurse, and they use all three of these senses to positively identify their own foal. If any of these senses are obstructed (naturally or artificially), the mare will take longer to identify their foal from others.

Maternal behavior is a complex process that in most animals is instinctual. It is thought to be triggered by hormonal influences and possibly genetics and some learned behavior. Other factors that contribute to maternal behavior are the sight, sounds, and smells of the foal itself. All of these factors come together to induce normal motherly behavior.

Foal Rejection

Now that we have discussed normal post-foaling behavior, we can discuss abnormal maternal behavior--more specifically maternal rejection or foal rejection. This rejection can be divided into three categories: Avoidance of the foal, rejection of nursing, and actual aggression toward the foal.

The first type of abnormal behavior is foal avoidance. This usually involves first-time mothers, otherwise known as primiparous mares, and it seems to be a fear-based reaction. The mare will run away from the approaching foal. The mare usually will not intentionally hurt the foal; however, if the mare and foal are confined to a small area, such as a small box stall, the mare might accidentally run over or step on the foal.

Cases of mares not allowing foals to nurse is the most common maternal behavior problem, according to an article authored by Katherine A. Houpt, VMD, PhD, a behavior specialist at Cornell University with strong interest in maternal behavior problems. This problem typically occurs with mares which are first-time mothers. Udder problems such as mastitis or a swollen, painful udder can lead to this type of behavior. Other times, the mare will allow humans to milk her, but will not allow the foal to nurse, indicating it is just the foal's nursing to which she objects and not a purely pain-based reaction.

The third type of abnormal behavior is aggression by the mare toward the foal. It is the least common, but most serious. This abnormal behavior is characterized by the mare attacking the foal, kicking, or biting the foal over the neck and back. The attacks usually come when the foal is standing or might be precipitated by the foal nearing the mare's food. Most aggressive mares will not attack their foals while they are lying down. The cause of this unprovoked aggression is unknown and it has been reported in many breeds.

There is some speculation that this behavior might actually be genetic in origin, as Arabian mares were the most common breed reported to demonstrate foal rejection in one study authored by Houpt. Furthermore, this behavior might manifest itself year after year with every foal.

These mares are usually primiparous, so some degree of their behavior might be related to inexperience as a mother. But, mares which have rejected two or more foals can be expected to have a repeat performance the following year.

Treatment of Foal Rejection

Foal rejection in any form must be treated promptly to have the best chance at reversing the behavior and, most importantly, to allow the foal to ingest colostrum. As discussed previously, if the mare will not allow the foal to nurse, colostrum should be collected from the mare and either bottle fed to the foal or administered through a naso-gastric tube. Your veterinarian will have to do the latter, and he or she should be called if the mare is showing rejection behavior.

For mares which have a fearful response to their foal, sedation might be all that is necessary for the mare to learn to accept her foal. Under veterinary supervision, the mare is sedated and the foal allowed to approach the mare. The mare is first placed against a wall, in stocks, or hobbled so the chance of her hurting the foal is less. Then the foal is allowed to nurse. The mare usually learns that the foal nursing relieves the pressure of her full udder and will accept the foal.

This method is also used to treat mares which object to the foal nursing. First, the mare should be examined by your veterinarian to determine if she has any problems that would cause pain from her udder, such as mastitis (inflammation or infection of the udder). If the mare's udder is normal, she is restrained using a bar (or hobbled) so that she cannot hurt the foal and sedated. Then the foal is encouraged to nurse from the mare. A handler should always be present to prevent injury to the foal while the mare is becoming accustomed to the foal.

For the mare which is aggressive toward her foal, she will need to be restrained at all times to prevent injury to her foal. Some methods used are cross ties, hobbles, or a bar creating a straight stall to prevent the mare from being able to kick the foal or turn sideways. The mare often is sedated initially when the foal is introduced.

Punishment and reward are also used to help the mare overcome her aggressive behavior, but are only used after the type of rejection is understood. Obviously, a fearful mare or mare displaying rejection due to pain should not be punished for rejection. Grain or treats can be fed to the mare while the foal is nursing. If she shows any aggression towards the foal, a whip can be used, but punishment must be given immediately and every time she shows aggression or other behavior problems could surface. This requires a great deal of time and effort on the owner's part, as the foal, especially in the first few days to one week of life, will need to nurse from the mare every half-hour around the clock.

Some mares will not accept their foal no matter what method is tried.

Returning to Instincts

Maternal behavior is in part instinctual, therefore, if all else fails, let nature take a try. Mares have a strong instinct to protect their foals, especially in the first few days of life. Hence, some mares will exhibit normal maternal behavior when the foal is threatened. For example, if the mare and foal are turned out with other horses and another horse shows interest in the foal or the foal approaches another horse, the mare's maternal instincts might be stimulated and she might begin to guard the foal. If none of the above methods works and the mare will not accept the foal, the foal will have to be raised as an orphan or placed with a nurse mare.

Prevention--What You Can Do

There are a few simple rules you can follow to help decrease the chance that a mare will be unwilling to accept her foal.

- 1) Keep interruptions of the new mare and foal, especially within the first few hours after birth, to a minimum. Of course, if the mare or foal are not progressing along as they should, human intervention is necessary.

2) Along the same lines as Number 1: Do not rebed the stall immediately after birth and leave the placenta in the stall for an hour or so, if possible. The placenta should always be saved so that your veterinarian can examine it later for completeness of expulsion or any signs of infection.

3) Avoid introducing strange horses or other unfamiliar animals to the mare's environment for the first few days after foaling. Anxiety over new animals can lead to poor bonding of the mare and foal and possible rejection. For example, do not place a new-to-the-farm horse in the stall next to or within the paddock where your mare and foal are housed. In the first place, the new horse might be carrying diseases that could make the foal sick, and if the new horse and the mare do not get along, the aggression the mare feels towards the new horse might become displaced to the foal.

In the vast majority of cases, mares deliver their foals and accept them without hesitation. However, in the unlucky few cases, the rejection is a serious problem, possibly leading to foal injury or illness. If your mare shows signs of rejection, ask your veterinarian for assistance. If you are new to the management of mares and foals, it is a good idea to have experienced professionals around to help.

**Readers are cautioned to seek the advice of a qualified veterinarian
before proceeding with any diagnosis, treatment, or therapy.**



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